Form 1449	Based on Form PTO-1449	ATTY. DOCKET NO.	APPLICATION SERIAL NO.
		VT-2165/02	10/683643
INFORMATI	ON DISCLOSURE STATEMENT	FIRST NAMED INVENTOR	
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	Sheet 1 of 5	FILING DATE	ART UNIT
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### U.S. PATENT DOCUMENTS

EXAMINER INITIALS	CITE NO.	DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	LOCATION WHERE RELEVANT PASSAGES OR FIGURES APPEAR
Ne	AA	US-5,910,382	06/08/99	Goodenough et al.	
1	AB	US-5,871,866	02/16/99	Barker et al.	
	AC	US-5,514,490	05/07/96	Chen et al.	
	AD	US-5,296,436	03/22/94	Bortinger	
	AE	US-5,262,548	11/16/93	Barone	
	AF	US-5,232,794	08/03/93	Krumpelt et al.	2
	AG	US-4,985,317	01/15/91	Adachi et al.	
	AH	US-4,707,422	11/17/87	deNeufville et al.	4
	AI	US-4,690,877	09/01/87	Gabano et al.	
	AJ	US-4,683,181	07/28/87	Armand et al.	
	AK	US-4,512,905	04/23/85	Clearfield et al	
	AL	US-4,434,216	02/28/84	Joshi et al.	
W	AM	US-4,260,668	04/07/81	Leccrf et al.	

### FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	CTTE NO.	DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	LOCATION WHERE RELEVANT PASSAGES OR FIGURES APPEAR	T
My	CA	EP 1 094 532 A1	4/25/2001	Sony Corporation	,	No
ſ	СВ	WO 00/5750S	9/25/2000	Valence Technology, Inc.		No
f t	CC	WO 01/53198	-7/26/2001	-Valence Technology, Inc		No.
W	CD	WO 01/54212	7/26/2001	Valence Technology, Inc.	·	No

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#### U.S. PATENT DOCUMENTS

EXAMINER INITIALS	CITE NO.	DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	LOCATION WHERE RELEVANT PASSAGES OR FIGURES APPEAR
au	AN	US-4,049,891	09/20/77	Hong et al.	
	AO	US-4,009,092	02/22/77	Taylor	
	AP	US-3,736,184	05/29/75	Dey et al.	
	AQ	US-6,085,015	07/04/00	Armand et al.	
	AR	US-5,281,496	01/25/94	Clarke	
	AS	US-5,683,835	11/04/97	Bruce	
	ΑT	US-5,512,214	04/30/96	Kaksbang	
	AU	US-5,316,877	05/31/94	Thackeray et al.	
	ΑV	US-5,240,794	08/31/93	Thackeray et al.	
	AW	US-5,803,947	09/08/98	Engell et al	
	AX	US-5,607,297	03/04/97	Henkey et al.	
	ΑΥ	US-5,384,291	01/24/95	Weimer et al.	
w	AZ	US-4,177,060	12/04/79	Tylko	· · · · · · · · · · · · · · · · · · ·

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	CITE NO.	DOCUMENT NUMBER	Publication Date	NAME OF PATENTEE OR APPLICANT	LOCATION WHERE RELEVANT PASSAGES OR FIGURES APPEAR	Т
W	CE	EP 0 680 106 A1	11/02/95	`		Yes
	CF	JP 61 263069		Mizmo .		Yes
	CG	WO 98/12761	03/26/98			No
W	СН	WO/01024	01/06/00			No

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# U.S. PATENT DOCUMENTS

EXAMINER INITIALS	NO.	DOCUMENT NUMBER	DATE DATE	NAME OF PATENTEE OR APPLICANT	LOCATION WHERE RELEVANT PASSAGES OR FIGURES APPEAR
(lei	BA	US- 3,865,745	02/11/75	Block et al.	24.1
1	BB	US-2,570,232	10/09/51	Honeging	
	BC	US-2,508,878	05/23/50	Yates et al.	
	BD	US-4,427,652	01-1984	Gaffar	
	BE	US-4,460,565	07-1984	Westrate et al.	
W	BF	US-4,828,833	05-1989	Cordon	

# FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	NO.	DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTES OR APPLICANT	Location where relevant passages or figures appear	Т
16	CI	EP 1 049 182 A2	11/02/00			Yes
	Cl	JP 2001-11-0414	04/20/01			Yes
	CK.	JP 2001-08-5010	03/30/01			Yes
	CL	JP 9134725	05/20/97			Yes
	СМ	JP 9134724	05/20/97			Yes
	CN	JP 62176054 (abstract)	08/01/87			No
	со	JP 56162477 (abstract)	12/14/81			No
	CP	RU 2038395 (abstract)	06/27/95		<u> </u>	No
W	-co	EP 1094533 AT	04/25/01			No

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EXAMINER INITIALS	CITE NO.	The state of the s	
10	DA	International Search Report for PCT/US97/15544	
	DB	Rangan et al., "New Titanium-Vanadium Phosphates of Nasicon and Langbeinite Structures and Differences Between the Two Structures Toward Deintercalation of Alkali Metal," JOURNAL OF SOLID STATE CHEMISTRY," 109 (1994) pp. 116-121	
	DC	Delmas et al., "The Nanicon-Type Titanium Phosphates ATi <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> (A= Li, Na) as Electrode Materials," SOLII STATE IONICS (1988) 28-30 pp.419-423	
	DD	Hagenmuller et al., "Intercalation in 3D-Skeleton Structures: Ionic and Electronic Features," MATERIAL RESOURCES SOCIETY SYMPOSIUM PROC., Vol. 210 (1991) pp. 323-334	
	DE	Padhi et al., "Lithium Intercalation into NASICON-Type Mixed Phosphates: and Li <sub>2</sub> FeTi(PO <sub>4</sub> ) <sub>2</sub> ," 37 <sup>th</sup> Power Sources Conference, Cherry Hill, New Jersey, Conference Data, June 17-20, 1996, published October 15, 1996	
	DF	Sisler et al., "Chemistry A systemic Approach," OXFORD UNIVERSITY PRESS, p.746, 1980	
	DG	Gopelakrishnan et al., "V <sub>2</sub> (PO <sub>4</sub> ) <sub>5</sub> : A Novel NASICON-Type Vanadium Phosphate Synthesized by Oxidative Deintercalation of Sodium from Na <sub>5</sub> V <sub>2</sub> (PO <sub>4</sub> ) <sub>5</sub> ," CHEMISTRY OF MATERIALS, Vol. 4, No. 4, July/Angust 1992, pp. 745-747	
	DH	Delmas et al., "The Chemical Short Circuit Method, An Improvement in the Intercalation-Deintercalation Techniques," MATERIALS RESEARCH BULLETIN, Vol. 23, 1988, pp. 65-72	
	DI	Ivanov-Schitz et al., "Electrical And Interfacial Properties of a Li <sub>3</sub> Fe <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> Single Crystal With Silver Electrodes," SOLID STATE IONICS, 91, (1996), pp. 93-99	
	Dì	Cretin et al., "Study Of Li <sub>1+x</sub> Al <sub>x</sub> Ti <sub>2-x</sub> (PO <sub>4</sub> ), for Li+ Potentiometric Sensors," JOURNAL OF THE EUROPEAN CERAMIC SOCIETY, 15, (1995) pp. 1149-1156	
	DK	Patent Abstracts of Japan (1994) Vol. 18, No. 64. (Abstract for JP 06251764)	
	DL	Okada et al., Center for Materials Science & Engineering, University of Texas, Austin, Texas, "Fe2(SO4)3 as a Cathode Material for Rechargeable Lithium Batteries."	
1	DM	Adachi et al., "Lithium Ion Conductive Solid Electrolyte," Chemical Abstracts 112 129692 (1981)	
J. I	DN	Delmas et al., "A Nasicon-Type Phase as Intercalation Electrode: Sodium Titanium Phosphate (NaTi <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> ," MATERIAL RESOURCES BULLETIN (1987)	
w	DO	Nanjundaswamy et al., "Synthesis, redox potential Evaluation and Electrochemical Characteristics of NASICON-Related-3D Framework Compounds," SOLID STATE IONICS, 92, (1996) pp.1-10	
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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	CITB	The part of the pa		
INITIALS	NO.			
U	DP	Nadiri, "Lithium Intercalation in Lithium Titanium Phosphate (LiTi <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> )," C.R. Acad. Sci. Set. 2 (1987), 304(9), pp 415-418		
)	DQ	Cotton et al., "Advanced Inorganic Chemistry," 3rd Edition, INTERSCIENCE PUBLISHERS, pp. 864-868		
	DR	Linden, "Handbook of Batteries," 2nd Edition, MCGRAW-HILL, INC. pp36.4-36.9		
	DS	Bykov et al., Superionic Conductors Li <sub>3</sub> M <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> (M= Fe, Sc, Cr): Synthesis, Structure and Electrophysical Properties," SOLID STATE IONICS, Vol.38 (1990) pp. 31-52		
·	DT	Gummow, et al., "Lithium Extraction from Orthorhombic Lithium Manganese Oxide and the Phase Transformation to Spinel," MATERIALS RESEARCH BULLETIN (1993), 28(12), 1249-56		
	DU	Gummow, et al., "An Investigation of Spinel-Related and Orthorhombic LiMnO <sub>2</sub> Cathodes for Rechargeable Lithium Batteries," J. ELECTROCHEM. SOC. (1994), 141(5), 1178-82		
	DV	Otsuka, et al., "Hydrogen Production from Water by Indium (III) Oxide and Potassium Carbonate Using Graphite, Active Carbon and Biomass as Reductants," CHEM. LETT. (1981), (3), 347-50		
. (	DW	Vasyutinskii, "Appearance of EMF During Ferric Oxide Reduction by Carbon," ZH. PRIKL. KHIM., (1973) 46(4), 779-82 (Abstract)		
le	DX	Gilchrist, Extraction Metallurgy, Pergamon Press (1980, pp. 160-173		
*				
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